APR 1 8 2008

TRANSMITTAL

H-21-08

**Application Number** 

First Named Inventor

Filing Date

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE he Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

10/678,599

October 3, 2003

FORM	First Named Inventor	Robert C. Lam et	t al.
V	Art Unit	1771	
(to be used for all correspondence after initial filing)	Examiner Name	Jennifer A. Steele	
Total Number of Pages in This Submission	Attorney Docket Number	01239/01092	
ENCLOSURES (Check all that apply)			
Fee Attached  Amendment/Reply  After Final  Affidavits/declaration(s)  Extension of Time Request  Express Abandonment Request	Drawing(s)  Licensing-related Papers  Petition  Petition to Convert to a  Provisional Application  Power of Attorney, Revocatio  Change of Correspondence A  Terminal Disclaimer  Request for Refund  CD, Number of CD(s)  Landscape Table on Cl	Address R	After Allowance Communication to TC  Appeal Communication to Board of Appeals and Interferences  Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  Proprietary Information  Status Letter Other Enclosure(s) (please Identify below): eturn Postcard
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name Emch, Schaffer, Schaub & Porcello, Co., L.P.A.			
Signature Charles R. Schaub			
Printed name Charles R. Schaub			
Date 4-18-08		Reg. No. 27,	518
CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature Sanel Eudmann			
Typed or printed name Janel Erdmann Date 4-17-07			

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for Public Holling this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Robert C. Lam et al. Exr. Jennifer A. Steele

Serial No: 10/678,599 Art Unit: 1771

Filed: October 3, 2003 Confirmation No.: 6145

For: HIGH PERFORMANCE, DURABLE, DEPOSIT FRICTION MATERIAL

Mail Stop Amendment Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

April 18, 2008

## RESPONSE TO THE NON-COMPLIANT BRIEF ON APPEAL

Sir:

This Response to the Non-Compliant Brief on Appeal is being filed in accordance with 37 CFR §1.136 by Appellants in the matter of the above-identified patent application. Filed with this response is a correct copy of the appealed claims as required by the Notification. Claim 20 has also been deleted from the claim appendix as this claim was withdrawn and is not on appeal.

Respectfully submitted,

EMCH, SCHAFFER, SCHAUB & PORCELLO CO., L.P.A.

Charles R. Schaub
Reg. No. 27,518

P.O. Box 916 Toledo, Ohio 43697 Ph: (419) 243-1294 Fax (419) 243-8502

CRS/ile

## **CLAIMS APPENDIX**

di

- 1. A friction material comprising a fibrous base material impregnated with at least one curable resin, the fibrous base material comprising high fiber content porous primary layer and a secondary layer comprising a mixture of carbon and silica friction modifying particles on at least one surface of the primary layer; the secondary layer comprises about 20% to about 35%, by weight, of silica particles, and about 65% to about 80% carbon particles, based on the total weight of the friction modifying particles.
- 2. The friction material of claim 1, wherein the secondary layer comprises about 5% to about 15%, by weight, of friction modifying particles, based on the weight of the fibrous base material.
- 4. The friction material of claim 1 wherein the friction modifying particles are present at about 0.2 to about 20%, by weight, based on the weight of the fibrous base material, the friction modifying particles covering about 3% to about 30% of the surface area of the primary layer.
- 6. The friction material of claim 1, wherein the friction modifying particles have an average size ranging from about 0.5 to about 20 microns.
- 7. The friction material of claim 1, wherein the friction modifying particles comprise a mixture of I) diatomaceous earth particles and ii) fully carbonized carbon particles or partially carbonized particles.
  - 8. The friction material of claim 1, wherein the fibrous base material defines pore diameters ranging in mean average size from about 2.0 to about 25 microns.
  - 9. The friction material of claim 1, wherein the primary layer has readily available air voids of at least about 50%.

10. The friction material of claim 1, wherein the fibrous base material comprises at least one type of aramid fibers, cotton fibers, graphite particles, and, at least one type of filler material.

har to be a

- 11. The friction material of claim 10, wherein the aramid fibers have a freeness of about 350 to about 650 on the Canadian Standard Freeness index.
- 12. The friction material of claim 10, wherein the aramid fibers have average fiber lengths in the range of about 0.5 to about 10mm.
- 13. The friction material of claim 10, wherein the filler comprises diatomaceous earth.
- 14. The friction material of claim 10, wherein the fibrous base layer comprises about 50 to about 60%, by weight, aramid fibers; about 40 to about 10%, by weight, cotton fibers; about 5-15%, by weight, carbon fibers; about 20 to about 30%, by weight, graphite particles; and, about 5 to about 15%, by weight, filler material.
- 15. The friction material of claim 1, impregnated at about 35 to about 40% resin, by weight, with at least one of: a phenolic resin, a modified phenolic resin, or a mixture of a phenolic resin and silicone resin wherein the amount of silicone resin in the mixture ranges from approximately 5 to approximately 80%, by weight, based on the weight of the mixture wherein the phenolic resin is present in a solvent material and the silicone resin is present in a solvent material which is compatible with the solvent material of the phenolic resin.
- 16. The friction material of claim1, wherein the fibrous base material comprises a plurality of less fibrillated aramid fibers having a freeness of at least

about 300 on the Canadian Standard Freeness (CSF) index, carbon fibers, graphite particles, and, at least one filler material.

4)- . . .

- 17. The friction material of claim 16, wherein the less fibrillated aramid fibers have a freeness of about 430 to about 650 on the Canadian Standard Freeness index.
- 18. The friction material of claim 17, wherein the aramid fibers have average fiber lengths in the range of about 0.5 to about 10mm.
- 19. The friction material of claim 16, wherein the fibrous base layer comprises about 50 to about 60%, by weight, less fibrillated aramid fibers; about 5 to about 20%, by weight, carbon fibers; about 20 to about 30%, by weight, graphite particles; and, about 3 to about 15%, by weight, filler material.